Examiner Note: Don't use these Claims Use Amended Set

Claims

1. Use of a motion sensor where the sensor is fastened to a selected position on the surface of an active heart for registering the movements of the heart in this position.

2. Use in accordance with Claim 1, characterised in that the use takes place post-operatively in connection with a bypass operation.

3.. Use in accordance with Claim 1, characterised in that the position is selected as a central point of that part of the heart muscle which after an operation receives blood from the revascularised coronary artery.

4. Use in accordance with Claim 1, characterised in that the motion sensor is designed by means of its dimensions and fastening devices to be removable from the position without requiring surgical intervention.

5. Use in accordance with Claim 1, characterised in that the motion sensor comprises an accelerometer that is sensitive to acceleration in at least one direction.

6. Use in accordance with Claim 1, characterised in that the motion sensor comprises a gyroscope for measuring rotary movement at the point of attachment of the sensor.

7. Use in accordance with Claim 1, characterised in that the registered movement is transmitted to a calculation unit located externally of the patient.

8. Use in accordance with Claim 1, characterised in that the motion sensor is incorporated into a temporary pacemaker electrode.

9. A motion sensor for registering the movements of a heart, which sensor is a motion sensor with a sensitivity of at least 600mV/g within a frequency range of 200Hz (band width) with a maximum amplitude of 2.5V, has dimensions of less than 1.5x1.5x4mm and is provided with an external material that does not cause reactions in biological material, and devices for fastening to a selected position on the surface of the heart, which sensor furthermore comprises a signal conductor for transmitting registered information to a calculation unit located externally of the patient.

10. A motion sensor according to Claim 9, characterised in that the dimensions of the sensor are less than 1x1x2mm.

11. A motion sensor according to Claim 9 or 10, characterised in that it comprises an accelerometer having at least one direction of sensitivity.

12. A motion sensor according to Claim 9, 10 or 11, characterised in that it comprises a gyroscope for measuring rotary movement about at least one axis at the selected point.

13. A system for monitoring changes in the movements of a heart muscle, comprising at least one motion sensor according to Claim 9, 10, 11 or 12, where the sensor is designed to be fastened to the surface of a heart and where the sensor is designed to emit signals that reflect the heart activity, to a calculation unit.

14. A system according to Claim 13, characterised in that it further includes biosensors that integrated into the accelerometer or fixed to the pacemaker electrode in order to emit signals that are characteristic to the heart activity.

15. A system according to Claim 13 or 14, characterised in that it further includes an amplifier and a calculation unit designed to amplify and calculate the signals, and a device for indicating deviation upon comparison.

16. A system according to Claim 15, characterised in that the calculation unit is expected to use fast Fourier transform for determining the frequency distribution.

17. A system according to Claim 15, characterised in that the calculation unit determines the frequency distribution of the signals, and that these are compared with a pre-set standard distribution.

18. A system according to Claim 15, characterised in that the pre-set standard distribution employed is the frequency distribution calculated immediately after insertion of the sensor.

19. A system according to Claim 18, characterised in that it comprises a device for indicating deviation from predetermined values, comprising an alarm transmitter designed to emit an alarm signal when the deviation from said standard distribution exceeds a certain level.

20. A system according to Claim 13, characterised in that the motion sensor is incorporated into a temporary pacemaker electrode.